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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,835	10/23/2003	James R. Przybyla	200312308-1	6671

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FORT COLLINS, CO 80527-2400

EXAMINER
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KOVAL, MELISSA J

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

10/691,835

Applicant(s)

PRZYBYLA ET AL.

Examiner

Melissa J. Koval

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-12, 15-17, 19, 22-25, 28-30 and 33 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 13, 14, 18, 20, 21, 26, 27, 31, and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "window" of claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-12, 15-17, 19, 22-25, 28, 29, 30 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by McDowell U.S. Patent 6,769,774 B2.

See the embodiment of Figure 2, for example.

Claim 1 sets forth; "A projection system comprising (See Figure 2):

a projection screen to (projector screen 203):

reflect and emit one or more ranges of wavelengths of visible light in a first group (See column 8, lines 38 through 59.); and

absorb visible wavelengths of light in a second group not included in the first group (Also see column 8, lines 38 through 59.); and

an ambient light source that is configured to output visible wavelengths of light in the second group that has a greater intensity than that of wavelengths of light output by the ambient light source in the first group." See ambient light source 220 that may be fitted with filter 230, and see column 8, lines 59 through 67, and column 9, lines 1 through 21, for example. The intensity of light is determined by modulation of light at a particular pixel location, as described in the text already pointed out above.

Furthermore, the examiner interprets the addition of filter 230 to create a situation where only light meeting the claimed limitation of “the second group” passes and therefore, that light must have a greater intensity than the claimed limitation of “the first group”.

Claim 2 sets forth: “A projection system as described in claim 1, further comprising a projector to project an image composed of the one or more ranges of wavelengths of light in the first group.” See projector 201 described in column 8, lines 39 through 42.

Claim 3 sets forth: “A projection system as described in claim 1, wherein the one or more ranges in the first group include:

- a range of red wavelengths of visible light;
- a range of green wavelengths of visible light; and
- a range of blue wavelengths of visible light.”

Again refer to column 8, lines 39 through 42.

Claim 6 sets forth: “A projection system as described in claim 1, further comprising a projector to project an image composed of the one or more ranges of wavelengths of light included in the first group, wherein the projector includes a component selected from the group consisting of:

- a digital micromirror device (DMD);
- a liquid crystal display (LCD);
- a grating light valve (GLV); and
- a liquid crystal on silicon (LCOS) device.”

See column 4, lines 32 through 55, and column 11, lines 5 through 18.

Claim 7 sets forth: "A projection system as described in claim 1, wherein the projection screen is configured to absorb the visible wavelengths of light in the at second group by utilizing a component selected from the group consisting of:

- a filter;
- a pigment;
- an optical coating;
- an optical dye; and
- any combination thereof."

To better understand light filter 204, that meets the limitation sets forth in claim 7, refer back to a description of light filter 100. See column 6, lines 48 through 67, column 7 in its entirety, and column 8, lines 1 through 11. Pigments, dyes and coatings are also discussed therein.

Claim 8 is rejected for the same reasons already applied to claim 1. Furthermore with respect to claim 8 and the limitation "a light emitting device that emits wavelengths of light that include", refer to column 4, lines 12 through 31. And with regard to the light filtering structure set forth in the claim, lines 23 through 27 state: "Each LED frequency band does not have to be exactly the same as the corresponding pass band of the bandpass filters. In fact, the frequency bands may be narrower or wider wherein wider frequency bands simply lead to a loss of reflected light".

Claim 9 sets forth: "A projection system as described in claim 1, wherein the ambient light source does not output an image." See column 8, lines 59 through 62.

Claim 10 is rejected for the same reasons already applied to both rejected claims

1 and 8 above. Also see filter 204.

Claim 11 is rejected for the same reasons already applied to rejected claim 2 above.

Claim 12 is rejected for the same reasons already applied to rejected claim 3 above.

Claim 15 is rejected for the same reasons already applied to rejected claim 7 above.

In view of the embodiment shown in Figure 2, the remarks applied to claims 1,8 and 10 are again pertinent with respect to claim 16. The embodiments shown in Figures 3 and 4 should also be considered as they show other filtering options.

Claim 16 sets forth: "An apparatus comprising a light filtering structure (that: reflects and absorbs wavelengths of light encountered by the light filtering structure in one or more ranges in a first group; and

transmits wavelengths of visible light in encountered by the light filtering structure in a second group not included in the first group, wherein:

the wavelengths of light transmitted by the light filtering structure in the second group have a greater intensity than that of the wavelengths of light transmitted by an ambient light source in the first group;

the wavelengths of light in the first group provide a white light when displayed by a projection screen; and

the wavelengths of light in the second group are absorbed when received by the projection screen." See column 9, lines 23 through 67, and column 10, lines 1 through 6 for a description of light filters 304, 330 and 403.

Claim 17 sets forth: "An apparatus as described in claim 16, further comprising a light emitting device that emits wavelengths of light that include:

the one or more ranges in the first group; and

the second group." Light emitting devices are discussed with respect to claim 8 and claim 17 is rejected for the same reasons.

Claim 19 is rejected for the same reasons already applied to rejected claim 3.

Claim 22 is rejected for the same reasons already applied to claims 1, 8, 10 and 16 above.

With respect to claim 23, again see the embodiment of Figure 4.

Claim 24 is rejected for the same reasons already applied to rejected claim 3.

Claim 25 sets forth: "A method as described in claim 22, wherein the displayed image is a full-color image when viewed by a human eye." See column 8, lines 43 through 46.

Claims 28 and 29 are rejected for the same reasons already applied to claims 1, 8, 10, 16 and 22 above. Also see Figure 7.

Claim 30 is rejected for the same reasons already applied to rejected claim 3.

Claim 33 is rejected for the same reasons already applied to claims 1, 8, 10, 16 and 22 above.



***Allowable Subject Matter***

Claims 4, 5, 13, 14, 18, 20, 21, 26, 27, 31 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 4, 5, 13, 14, 20, 21, 26, 27, 31 and 32, the prior art of record neither shows nor suggests all of the elements of claims 4 and 5 in combination and particularly: "wherein the one or more ranges in the first group include a range of ultraviolet wavelengths".

Note that in column 2, lines 66 and 67, and column 3, lines 1 through 28, the spectral differences between the "white" light emitted from the projector and the ambient "white" light are discussed. Based on this teaching, the examiner believes that the "white" light emitted by the projector does not include light of ultraviolet wavelengths.

The prior art of record does not show all of the elements of claim 18 in combination and particularly "wherein the light filtering structure is disposed on the window."

***Response to Arguments***

Applicant's arguments with respect to claims 1 through 33 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

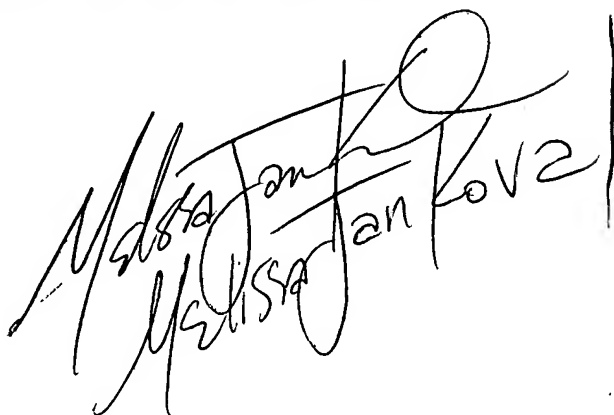
Braun et al. U.S. Patent 5,335,022 teaches a high-contrast front projection video display system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J. Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJK

A handwritten signature in black ink, appearing to read "Melissa J. Koval", with a large, stylized flourish at the end.